

## SEQUENCE LISTING

&lt;110&gt; SMITH, JOHN C.

&lt;120&gt; DIAGNOSTIC METHOD

&lt;130&gt; PLS/009901/0277123

&lt;140&gt; 09/778,900

&lt;141&gt; 2001-02-08

&lt;150&gt; GB 0004232.5

&lt;151&gt; 2000-02-24

&lt;160&gt; 24

&lt;170&gt; PatentIn Ver. 2.1

&lt;210&gt; 1

&lt;211&gt; 1073

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; modified\_base

&lt;222&gt; (396)

&lt;223&gt; a, c, t, g, other or unknown

&lt;400&gt; 1

gggtttactt tgccacttct tgcttttctt atatatgtag aaaagccaca gtgcgcccc 60  
ctgttggccc atatgtaata tatattcttg cttatacaag atggccatgg gaagttat 120  
ttagtcattg tttggaatga ctttataaaa atgctttgca ttttttagca agaccatcat 180  
ataattgttt aagatcaagt acaacacata aggtcactgg agaatttgag tgcattgttat 240  
ccaagatagg atggttagagc tcacattaca gaaatgtagt gtgggaatag taaggagtcg 300  
tttaatagaa attgcacacc taagtgtgat gagtgtatgt gaatgtggag aagtactttc 360  
tgcacctggc cacacagttt caaccnaaat atcccnnaat aaaacagtgg atgttaacgg 420  
aatatctagg atttgttaaag ttgttttctt ctcgatgact ttgagatctc tttatttctc 480  
agtcttcttc tgaaataaag actgactacc tatcaattat aatggacca gatgaagttc 540  
ctttggatga gcagtgtgag cggctccctt atgatgccag caagtgggag tttgcccggg 600  
agagacttaa actgggtaag atatttggtt aacagattca taaacctata ctgagcacat 660  
attacatgaa aaacactgtg ctttgagaga tgcgaaagta aactagacct gggattctac 720  
cctccagctg ctcacagact agcaaggagg atggacacaa aagtaaataa ttccaatgca 780  
atgctcagat aacagtacaa ggtgacacgc agcacctgtt tgttcttgca acagttatta 840  
ggcaccttct ctgagcagca gacactgggc taagccctgg agacacaaag gtgcttgcat 900  
ctcttccctc aaagggtcga gtctggagat aggtgcaaaa gtggtaagtg aaggggggcg 960  
gagagagagg cattacaagt acacgcacgc ttcataatga aactgttgag ggattagaaa 1020  
tatgtgatcc agaacataat tgagggtggc aaggaacagt gaaatcaaca ttc 1073

&lt;210&gt; 2

&lt;211&gt; 1480

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; modified\_base

&lt;222&gt; (132)

&lt;223&gt; a, c, t, g, other or unknown

<220>  
 <221> modified\_base  
 <222> (359)  
 <223> a, c, t, g, other or unknown

<220>  
 <221> modified\_base  
 <222> (386)  
 <223> a, c, t, g, other or unknown

<400> 2  
 cactgtgccc ggccagcttt gctatattt agctgcatgt gaatttgatt actttacttc 60  
 tctgaacctg tttctccatg tataaataag aactacttcg taaaattggt ggaaacacta 120  
 aacaagaaat gnacctaag cttttaatat accagctcac acagagtaag cattcagtaa 180  
 ataccacca ctcttaattt tttttttta tctgatctaa gatgctgtct agaagccag 240  
 gcaagagcac aatagactct gcaactccag aggtagtcag gctcctggac accgtagggc 300  
 ccctgtgcta gttcacgac cattttgaga agtgaaacgc tctcatttct catcaggcna 360  
 ttgccagttg agggactggg tccccnctgc tgtgctggag ctccctttca cctgggtcct 420  
 tttcggctctc ttcaaaggat gcagcactac acatggagcc taagaaagaa aaaatggagc 480  
 caggcctgga acaaggcaag aaaccaagac tagatagcgt caccagcagc gaaagctttg 540  
 cgagctccgg ctttcaggaa gataaaagtc tgagtgatgt tgaggaagag gagggtaggt 600  
 attaattcct tcctgtccta cgcgctgaga tatttttaca acatactatg catctctgaa 660  
 atttttttct tatttatcac tctaataaac atccgtggga gactcgaatg gtaatgtcct 720  
 gaggagataa gatttgaatt aagataattt acagagttac taattttgac agggaaactgt 780  
 accgttttct cccctcaggg attttcatct taatggatca tccccctgcc cccatgcttg 840  
 gataaagtgg gctggaggcc tggaaaaatc tctggtgttc atgttgaaac tcaaatactc 900  
 ttaaaaaatga actctgatct acttggttgg tttgtttatg ttttgctaac attgttccaa 960  
 taaactggga tttggtggga taacaagagc cattacaaac agttacgggt ctaatgcttt 1020  
 ccagattctg acggtttcta caaggagccc atcactatgg aagatctgat ttcttacagt 1080  
 tttcaagtgg ccagaggcat ggagttcctg tcttcagaa aggtcagctc tgctgtttac 1140  
 tgtttttctt ctctgccagg gctggacaca cacccttgct ataaattcat ttttcctagt 1200  
 atttgctgat acctatgttc ttaaatgtag aacaaacacc actgcaagtg ccttaatttg 1260  
 ccttgatatg aggagttttg agaatgagga gtcattggata ccagtggata gaacttaatt 1320  
 ctggggaaaa ctcacaggtt tcagactaga caaacctggc atcggctctc cacagtatcc 1380  
 tctggcatat tttcaaatct ggcccaaatc tcagaagaca tgacttcata ggagagctac 1440  
 tattaatata gccatatagg gccctccac aaaactgcag 1480

<210> 3  
 <211> 726  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> modified\_base  
 <222> (59)  
 <223> a, c, t, g, other or unknown

<400> 3  
 cagagctatg cagataagga catgctgaac acatcagagg ggcttactga acatatacng 60  
 ccttcatggg actcagtata gcactctagc tccctctttt agcgtaacac tgcatactat 120  
 ggtgttctct atgttaggaa accagagctg ctctcggaaa tgatttatag gccgtatgtt 180  
 atctgggagg tgaccccatg gacactcggg ttgaatgtgc tttgttttca tgcccttctg 240  
 ctcaaggccc ccttgccctc ttctagactc gacttcctct gaaatggatg gtcctgaat 300  
 ctatctttga caaatctac agcaccaaga gcgacgtgtg gtcttacgga gtattgctgt 360  
 gggaaatctt ctcttaggt aaatttggga gaaggaagaa atcaaacagc ccagaaataa 420  
 atgtctgcat cttctgctga atgtcctttg gttggacagc ctttagatta gaacctactg 480

|            |            |            |            |            |            |     |
|------------|------------|------------|------------|------------|------------|-----|
| taacaaaaaa | ctcttaaagt | gtaatgggcc | catgtagact | ctcagatgag | taatggcgta | 540 |
| cgcatgtctg | ccctctactg | taaaagggct | ttatatgata | atgaacaagg | tcagaacaag | 600 |
| gtcatgtaaa | agggctttat | acgatcatga | acaaggggat | aaagtctgaa | gcaaagtact | 660 |
| ttttctgtac | tttgccaatt | ctgccttttc | aattcctcaa | cacccacacc | tctaattgcc | 720 |
| ttaccg     |            |            |            |            |            | 726 |

&lt;210&gt; 4

&lt;211&gt; 1352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; modified\_base

&lt;222&gt; (878)

&lt;223&gt; a, c, t, g, other or unknown

&lt;400&gt; 4

|             |             |             |             |            |            |      |
|-------------|-------------|-------------|-------------|------------|------------|------|
| ctgcagaggc  | cacaggcaca  | acaaagaacc  | tgggtatcca  | tgagctctgg | tgggttggtt | 60   |
| agtctgcctt  | ggtagacgtg  | ttttccactg  | accacaggac  | ctggcccaga | cagcctttta | 120  |
| agtgtctggtg | ctataaacc   | aaacctaaaa  | atgaagcagg  | gtcacatagt | acagaaagct | 180  |
| tgggctttat  | gcggatgatg  | acagccctcc  | ctttgtagta  | cgtaaggcaa | tgcataggat | 240  |
| gatcactgct  | ctccaactat  | ttctgttgct  | gttttcccca  | ccagctatca | gatcatgctg | 300  |
| gactgctggc  | acagagaccc  | aaaagaaagg  | ccaagatttg  | cagaacttgt | ggaaaaacta | 360  |
| ggtgatttgc  | ttcaagcaaa  | tgtacaacag  | gtaaaaactaa | atttatctac | atcaaaatgc | 420  |
| ctttgaatgt  | acgtcagggg  | ggcattttat  | ttgttttttt  | tttaagagct | attaatataa | 480  |
| tagctgagat  | cagaagttta  | aaaaaagggt  | gtgtgtgtgt  | gtatacagaa | ttatcttctc | 540  |
| aaaacacaac  | caagatttg   | gcaaattgaca | tagtcaaagt  | tgacataatg | gttcatagaa | 600  |
| attgttgaag  | tcagaattgg  | tgcaacgaga  | gctctacctt  | tggtatttta | ggatggtaaa | 660  |
| gactacatcc  | caatcaatgc  | catactgaca  | ggaaatagtg  | ggtttacata | ctcaactcct | 720  |
| gccttctctg  | aggacttctt  | caaggaaagt  | atttcagctc  | cgaagttaa  | ttcaggaagc | 780  |
| tctgatgatg  | tcaggtaaga  | tttctttctc  | aaactttata  | tcacagaatt | ttccaacaaa | 840  |
| aaaaagaaaag | aaagaaagac  | gaaagagaaa  | gaaagacnga  | aagagagaaa | gaaagagaga | 900  |
| aagaaagaaa  | gagagaaaga  | aagaaagaaa  | gattatgttg  | atcaccaccc | atatgcccat | 960  |
| cccctaaatt  | caactgttaa  | cattttgccc  | tattttgtct  | attatactct | ctatgattgt | 1020 |
| gtttgttacg  | gatttttctt  | tttgccaaac  | catttaaaag  | gaggcttaaa | gcataatagc | 1080 |
| actttactcc  | taaatacttt  | agtatacatt  | ttgtaagaag  | gctattgttg | ctgggcacag | 1140 |
| tggctcgtgc  | ctgtaatcgc  | agcacttttg  | gagactgagg  | tgggaggatc | acttgagcct | 1200 |
| aggagttcaa  | aatctgcctc  | ggcaacatag  | agagacctca  | tcttactaaa | aatttaaaaa | 1260 |
| ttagccgggt  | gtgggtgggtg | gcacctgtag  | tcccagctac  | tcaggaggct | gaggttggag | 1320 |
| gatcacttga  | gccaggaga   | tggaggctgc  | ag          |            |            | 1352 |

&lt;210&gt; 5

&lt;211&gt; 1256

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5

|             |            |            |            |             |             |     |
|-------------|------------|------------|------------|-------------|-------------|-----|
| agtggatgtc  | tccaatagtc | tttcctaata | catcatcaac | aaaaggctcag | taggtagtta  | 60  |
| tagagacatc  | atacaacact | acccaattct | tcccaatctg | taatcacaca  | cacacacaaa  | 120 |
| atacaagcct  | ggcactagca | ctcgattatg | ccattaaata | atatttagcc  | gtgtagccat  | 180 |
| gccagggtcac | tttgccacct | cacatccttt | tcagagcacc | tgataaaagtc | ataccacttc  | 240 |
| cctgcacatc  | atttctctcc | tgtgccattg | ggcactcaga | cgagatgatg  | cctccagctc  | 300 |
| ctctacgtgc  | tggcattctc | tgatttcaca | acggcagaga | gtaggctcct  | ctgggagttt  | 360 |
| cctcaaccct  | acagaatgtg | aattgacaac | cacgggaggc | agtggaatg   | ctgtcaggat  | 420 |
| tcccaggggt  | cacggcgggg | agatcggggc | ctcaggagtt | aggtgattcc  | tgttgggtgtg | 480 |
| ttggttcatc  | ttagctggga | tatggtgcct | gtggtctcct | gactcattag  | agctggatgc  | 540 |

```

cttttcctgt cttgataatt ctttctgttt cttcattaga tatgtaaagt ctttcaagtt 600
catgagcctg gaaagaatca aaacctttga agaactttta ccgaatgcca cctccatggt 660
tgatgtaagt cgtgaagtta aggtacctag tgcactccga tagaccctt cttcagatcc 720
cttccaaaca ccaacgccag taatgtagta gttcttggtc agtgagggtc tggattcagg 780
agtggctgaa atgacagtgt ggggaggact gacaactaga cctagctgtg cagaactaat 840
ttgaaaagtag agttccatgc actcactcca ggaccocaagt ccctgcgtgg taggaattta 900
gaccctgagg aaactccatt gtgtgtttct aagctgctta gctgtcagt atgcagcttt 960
gctttcagag taacagagga actcccagct gtgtgggtga tgggctttgt gatgtaacag 1020
agagcgcgtt cctgcaagca gccttgaggc tgggaggggt ccacctaagc cttatgctcc 1080
tttcccctga ggttctacag attgaacagc tgtgttccta cccaatcaca atgggagaag 1140
ctaaccagta tagcctggca aacaagaggt cttccagctc ttctctctaa agccctgtga 1200
tgtgggggtg aggggctaag gggaggagag gagcatgggc aggagcgata ctgcag 1256

```

```

<210> 6
<211> 31
<212> DNA
<213> Homo sapiens

```

```

<400> 6
ggaaaaaatg ccgacrgaag gagaggacct g 31

```

```

<210> 7
<211> 31
<212> DNA
<213> Homo sapiens

```

```

<400> 7
gaaatggatg gctccygaat ctatctttga c 31

```

```

<210> 8
<211> 31
<212> DNA
<213> Homo sapiens

```

```

<400> 8
tgatgatgtc agataygtaa atgctttcaa g 31

```

```

<210> 9
<211> 31
<212> DNA
<213> Homo sapiens

```

```

<400> 9
aaaaagacac ggacaygtc ccctgggacc t 31

```

```

<210> 10
<211> 31
<212> DNA
<213> Homo sapiens

```

```

<400> 10
gatcggactt tccgcycta gggccaggcg g 31

```

<210> 11  
<211> 31  
<212> DNA  
<213> Homo sapiens

<400> 11  
gacggactct ggcggycggg tctttggccg c 31

<210> 12  
<211> 31  
<212> DNA  
<213> Homo sapiens

<400> 12  
tctggcggcc gggctcttgg ccgcggggag c 31

<210> 13  
<211> 31  
<212> DNA  
<213> Homo sapiens

<400> 13  
gaatgtcctt tggttgaca gcctttagat t 31

<210> 14  
<211> 31  
<212> DNA  
<213> Homo sapiens

<400> 14  
aggtacctag tgcacyccga tagaccctt c 31

<210> 15  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 15  
atgggtttca tgttaacttg gaaaaaatgc gtac 34

<210> 16  
<211> 28  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 16  
cattcatgat ggtaagatta agagtgat 28

<210> 17  
<211> 35  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 17  
tcttggttgc tgtagatttt gtcaaagata gctgc 35

<210> 18  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 18  
accccatgga cactcgggtt gaat 24

<210> 19  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 19  
cctcaaccct acagaatgtg aattg 25

<210> 20  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 20  
cagctaggtc tagttgtcag tcttc 25

<210> 21  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 21

gggtgcatca atgcggccga aaaagacacg gca

33

<210> 22

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 22

gtgttcttgg cacggagg

18

<210> 23

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 23

ggcgcggccca gcttccttg gatcggactt ggcgc

35

<210> 24

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 24

ctgctcgccc ggtgcccgcg ctccccgcgg ttaa

34